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EXAMINER	
POLLACK, MELVIN H	
ART UNIT	**PAPER NUMBER**
2145	

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/057,008	LITWIN, LOUIS ROBERT	
	Examiner	Art Unit	
	Melvin H. Pollack	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *see attached office action*.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 20 recites the limitation "said providing step" in claim 14. There is insufficient antecedent basis for this limitation in the claim. The examiner assumes for this action that claim 20 should really be dependent on claim 17 or 18.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 6-8, 14-17, 24, 25, 28, 29, 34-37, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Shaffer (5,898,668).

6. For claims 1 and 25, Shaffer teaches a method (abstract) for providing content to network devices in a communication network (col. 1, line 1 – col. 4, line 35), the method comprising the steps of:

a. Determining a level of congestion of the communication network (col. 6, lines 35-50);

b. Calculating a cost of service based on the level of congestion (Figs. 1 and 2, #26; col. 5, line 50 – col. 6, line 50);

c. Informing the network devices of the cost of service (Fig. 4);

d. Receiving a first selection from a user of a network device specifying a content to be downloaded to the network device during a download process (col. 4, lines 55-60);

e. Receiving a second selection from the user specifying a cost of service threshold for the download process (col. 6, line 63 – col. 7, line 5);

f. Automatically comparing the cost of service to the cost of service threshold (col. 8, lines 5-20);

g. Automatically performing the download process, when the cost of service is less than the cost of service threshold (Fig. 3, #76; Fig. 5, #98).

7. For claims 6 and 28, Shaffer teaches that the method further comprises

a. Receiving a third user input corresponding to a permission to begin the download process only after a random amount of time has elapsed from when the cost of service initially falls below the cost of service threshold (col. 9, lines 50-60); and

b. Delaying a start of said performing step until the random amount of time has expired, when the cost of service initially falls below the cost of service threshold and the third input has been received (col. 9, line 60 – col. 10, line 5).

8. For claims 7 and 29, Shaffer teaches notifying the user when the download process is complete (col. 9, lines 64-66).

9. For claim 8, Shaffer teaches updating a pervious cost of service (col. 6, lines 5-15).

10. For claims 14 and 34, Shaffer teaches that the content comprises at least one of e-mail, stock quotes, sports scores, movies, audio files, data, software programs, and device driver updates (col. 5, lines 64-65).

11. For claims 15 and 35, Shaffer teaches monitoring the cost of service, and comparing the cost of service to the cost of service threshold only when there is a change of the cost of service (col. 8, lines 35-60).

12. For claims 16 and 36, Shaffer teaches automatically notifying the user when the cost of service is below the cost of service threshold (Fig. 5, #98).

13. For claims 17 and 37, Shaffer teaches providing at least one of the level of congestion and the cost of service to users of the network devices (Fig. 4).

14. For claims 24 and 44, Shaffer teaches that the communication system is packet based, and said determining step comprises the step of dividing a number of packets in a queue that stores incoming packets by a total size of the queue (col. 5, lines 1-40).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. Claims 2 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer as applied to claims 1 and 25 above, and further in view of Rao (6,876,627).

17. For claims 2 and 26, Shaffer does not expressly disclose a time-out period in which downloads are attempted irregardless of cost of service. Rao teaches a method (abstract) of

providing cost of service connections to packet/phone networks (col. 1, line 1 – col. 2, line 45), the method further comprising:

a. Receiving a first user input corresponding to a time period after which the network device will complete the download process irrespective of the cost of service if the download process is not yet completed (col. 6, lines 50-55);

b. Timing the time period upon a start of said performing step, when the first user input has been received (col. 6, lines 40-50); and

c. Proceeding with the download process irrespective of the cost of service, when the time period has elapsed (Fig. 3, #15).

18. At the time the invention was made, one of ordinary skill in the art would have added the delay and irregardless connection to Shaffer in order to handle the probability of changing network conditions (col. 2, lines 1-20).

19. Claims 3-5 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer as applied to claims 1 and 25 above, and further in view of Kannas et al. (6,683,853).

20. For claims 3 and 27, Shaffer does not expressly disclose utilizing inputs to increase the cost of service, although it does teach that the cost of service may be raised or lowered as events dictate (col. 8, lines 35-60). Kannas teaches a method (abstract) of dynamically modifying quality of service and connections (col. 1, line 1 – col. 2, line 60), the method further comprises:

a. Receiving a second user input corresponding to a permission to gradually increase the cost of service threshold in increments if the cost of service is above the cost of service threshold (col. 5, lines 5-35);

b. Gradually increasing the cost of service threshold in increments until the cost of service is less than the cost of service threshold, when the cost of service is above the cost of service threshold and the second input has been received (Fig. 2, #62).

21. At the time the invention was made, one of ordinary skill in the art would have used Kannas dynamic modification in the Shaffer system in order to allow users to control the quality of service provided (col. 1, lines 50-55).

22. For claim 4, Shaffer teaches that the increments are user-specified or pre-specified (Fig. 3, #84).

23. For claim 5, Shaffer does not expressly disclose that the second user input specifies the increments. Kannas teaches this limitation (Fig. 3, #80). At the time the invention was made, one of ordinary skill in the art would have used Kannas dynamic modification in the Shaffer system in order to allow users to control the quality of service provided (col. 1, lines 50-55).

24. Claims 9-12 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer as applied to claims 1 and 25 above, and further in view of Hashem et al. (6,748,222).

25. For claims 9 and 30, Shaffer does not expressly disclose that transmitting the cost of service to the network devices using a broadcast channel common to all of the network devices. Hashem teaches a method (abstract) of signaling load conditions and handling load balancing (col. 1, line 1 – col. 3, line 35) through the usage of a power signal (Fig. 5) that acts as a separate broadcast channel (col. 5, lines 25-35). At the time the invention was made, one of ordinary skill in the art would have added Hashem signaling to allow devices to determine which server a device should connect to for load balancing purposes (col. 5, lines 50-60).

26. For claims 10 and 31, Shaffer does not expressly disclose informing the network devices of the level of congestion, although it is related to informing the network devices of the cost of service. Hashem teaches this limitation (col. 6, line 40 – col. 7, line 40). At the time the invention was made, one of ordinary skill in the art would have added Hashem signaling to allow devices to determine which server a device should connect to for load balancing purposes (col. 5, lines 50-60).

27. For claim 11, Shaffer teaches updating a previous level of congestion (Fig. 3, #78).

28. For claims 12 and 32, Shaffer does not expressly disclose transmitting the level of congestion to the network devices using a broadcast channel common to all of the network devices. Hashem teaches this limitation (col. 7, lines 40-55). At the time the invention was made, one of ordinary skill in the art would have added Hashem signaling to allow devices to determine which server a device should connect to for load balancing purposes (col. 5, lines 50-60).

29. Claims 13 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer as applied to claims 1 and 25 above, and further in view of Thompson et al. (5,961,602).

30. For claims 13 and 33, Shaffer does not expressly disclose ceasing the download process when the cost of service rises above the cost of service threshold, and resuming the download process when the cost of service falls below the cost of service threshold. Thompson teaches a method (abstract) of optimizing data downloads through cost of service tracking (col. 1, line 1 – col. 3, line 40) by delaying downloads (Fig. 5, #258) during peak time periods (Fig. 5, #256). At

the time the invention was made, one of ordinary skill in the art would have added a Thompson pause method to Shaffer in order to save time and connection charges (col. 1, lines 45-55).

31. Claims 18, 20, 38 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer as applied to claims 1, 14, 17, 25, and 37 above, and further in view of Taylor (6,854,012).

32. For claims 18 and 38, Shaffer does not expressly disclose displaying at least one of the level of congestion and the cost of service to users of the network devices. Taylor teaches a method (abstract) of handling cost of service for devices (col. 1, line 1 – col. 11, line 20) in which congestion and service information are displayed (col. 20, line 55 – col. 22, line 25). At the time the invention was made, one of ordinary skill in the art would display this information because a user might be upset if this feedback is not displayed (col. 21, lines 5-10).

33. For claims 20 and 40, Shaffer does not expressly disclose displaying at least one of the level of congestion and the cost of service to users of the network devices using a series of stacking bars, such that increases in the level of congestion and/or the cost of service to users of the network devices. Taylor discloses this limitation (Fig. 7A and 7B, #520). At the time the invention was made, one of ordinary skill in the art would display this information because a user might be upset if this feedback is not displayed (col. 21, lines 5-10).

34. Claims 19 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer as applied to claims 1, 17, 25 and 37 above, and further in view of Gross et al. (6,553,515).

35. For claims 19 and 39, Shaffer does not expressly disclose audibly outputting at least one of the level of congestion and the cost of service to users of the network devices. Gross teaches a method (abstract) of diagnostics supervision (col. 1, line 1 – col. 2, line 50) of networks, including QoS (col. 3, line 65 – col. 4, line 5), in which an audible notification is used during QoS shifts (col. 18, lines 5-10). At the time the invention was made, one of ordinary skill in the art would have used audible notifications so that the user would be aware of connection rerouting (col. 17, lines 62-63).

36. Claims 21 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer as applied to claims 1 and 25 above, and further in view of Ward et al. (5,701,294).

37. For claims 21 and 41, Shaffer does not expressly disclose that the communication system is a Time Division Multiple Access (TDMA) system, and said determining step comprises the step of dividing a number of used slots by a number of total slots. Ward teaches a method (abstract) of performing cost of service methods (col. 1, line 1 – col. 4, line 15) in a TDMA system as described (col. 5, lines 45-65). At the time the invention was made, one of ordinary skill in the art would have added TDMA to Shaffer in order to allow communications within a cellular radio environment (col. 2, lines 30-40).

38. Claims 22, 23, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer as applied to claims 1 and 25 above, and further in view of Provance (6,731,613).

39. For claims 22 and 42, Shaffer does not expressly disclose that the communication system is a Code Division Multiple Access (CDMA) system, and said determining step comprises the

step of dividing a number of used codes by a number of total codes. Provance teaches a method (abstract) of power-saving bandwidth control mechanisms (col. 1, line 1 – col. 2, line 15) which utilizes CDMA as shown above (col. 4, lines 1-5). At the time the invention was made, one of ordinary skill in the art would have used CDMA in Shaffer in order to accommodate a large number of devices (col. 3, lines 60-65).

40. For claims 23 and 43, Shaffer does not expressly disclose that the communication system is a Frequency Division Multiple Access (FDMA) system, and said determining step comprises the step of dividing a number of used frequencies by a number of total frequencies. Provance teaches the use of FDMA (col. 4, lines 1-5). At the time the invention was made, one of ordinary skill in the art would have used CDMA in Shaffer in order to accommodate a large number of devices (col. 3, lines 60-65).

Conclusion

41. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

42. Dynamically using monitored data to determine peak and non-peak segments: Cox (6,011,838 and 6,449,350).

43. Dynamically providing cost of service information to mobile phones: Odlyzko (6,295,294), Meempat et al. (6,778,496), Granberg (6,195,543).

44. Performing QoS through connection control: Marin et al. (5,936,940), Selinger (6,345,038), Kim (6,215,768), Chuah (6,377,548), Chiang et al. (6,594,277) and Zhu et al. (H2051).

45. Performing QoS and Bandwidth Allocation through queuing: Shorey et al. (6,829,649).

46. Background on QoS calculations: Charny (5,956,322), Anandakumar et al. (6,801,499), RFC 2386, RFC 2210, RFC 2212, RFC 2998.

47. Background on messaging in QoS: Agraharam et al. (6,240,462), Davies et al. (6,839,767), Lo et al. (6,798,786).

48. Background on Wireless Networks : RFC 3141, RFC 3002.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin H. Pollack whose telephone number is (571) 272-3887. The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached on (571) 272-6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MHP
12 May 2005

V. Martin Wallace

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